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THE GENESEE FARMER.

SATURDAY, DECEMBER 15, 1838.

WHEAT WORM IN ENGLAND.

From various papers which have appeared in the foreign agricultural periodicals within a few months, it appears that the worm, or maggot, which has created so much alarm in this country, and which within a few years has done so much damage in some parts of this state, has this year seriously injured the English wheat crop. It appears also, that it has been known in that country for a number of years, in some seasons proving far more injurious than in others, and that the years in which wheat has suffered most, are those in which, form wet or cold, the wheat remains in the milk longer than in others. We shall give a few extracts, which will show that the insect is the same as with us; but the details being from practical farming observers, we are left ignorant of the entomological history or character of the insect.

In a letter from Mr. Robert Baker to the editor of the L. F. Magazine, he says:—

"The mischief produced arose from a small orange-colored fly, about 1-12th of an inch in length, and not unlike a midge in appearance, and which may be observed, when prevalent, two or three hours before sunset, upon the ears which have partially appeared, with their ovipositors inserted betwixt the chaff, and upon examination with a microscope the eggs may be observed in small clusters, which in about eight or ten days become maggots of an orange color, and which subsist upon the pollen of the wheat; the better to effect this object the insect succeeds in glueing up the chaff, thus preventing the antlers escaping, so as to produce the proper fructification. The chaff becomes discolored and contracted, and upon opening it the maggots will be apparent, and shortly before the maturity of the grain they escape into the soil, where they remain in the pupa state until the following year when the fly again emerges to carry on its ravages, and propagate their species, sometimes injuring the crop, as in the years 1828 to 1830 from 20 to 30 per cent."

Mr. Twynam, in the Mark Lane Express, describes the insect as follows:

"This maggot is produced by a small fly, of a reddish yellow body and fawn colored wings. The moment the stem of wheat is cracked by the bursting ear, and long before it is fairly out, swarms of these flies settle on it, and may be seen of an evening, (at which time they are most busy) completely covering the exposed part, and introducing from their body a long tube, about the size of a fine hair, into the capsula, or as commonly termed the chaff of the ear, where the blossom of the wheat is forming, through this tube, I imagine, the eggs from which the maggot is produced are deposited. Certain it is that in about ten days from the time these flies are thus adhering to the ear, the maggots begin to show themselves—it will be observed that one side of the ear is much more effected than the other, which is accounted for by its bursting the sheath laterally, and one part being exposed to the fly before, and longer than the other, one part being filled with the maggot while the other will be free."

Mr. Poppy, a gentlemen well known as an agricultural writer, says:—

"The wheat fly deposits its ova, or larvæ, in the ear, just in time for the maggots to feed on the kernel whilst in a milky state, and when full grown they drop on the ground, and bury themselves, and emerge a fly in the following spring. * * * Mr. Hillyard and others seem to speak of the wheat worm as a new disease, whilst it has always existed more or less in these eastern counties, and I presume in others."

Though from these notices, it appears that the fly is the same as known among us, yet it seems to have attracted little attention except in particular seasons, and on the whole to have produced little effect on the culture of wheat in England. No remedies tried seem to have been of any benefit, unless fall ploughing lightly, by exposing the larvæ to the frosts of winter, may in some instances, have operated favorably. There, as here, fields a little earlier or later have wholly escaped, while those around them have been destroyed; but no certain time of appearance can be fixed upon, and consequently no time of sowing so as to avoid the fly can be confidently relied on. The temperature of the season by advancing or retarding the development of the fly, seems to have the most influence on its appearance, which ordinarily, is not far from the middle of June. None of these writers speak of its feeding on the ripened grain, which the worm certainly does here, a fact until very lately, entirely overlooked or disbelieved. Does not the presence of the worm or maggot, for so long a period in England, with but occasional injury to the wheat crop, leave ground for a hope that the same result may be experienced here; and that the alarm which has been felt in some sections, and the fears expressed that the culture of wheat would have to be abandoned in this country, prove more imaginary and short lived, than real and permanent. At any rate no disposition is shown in England to abandon the growing of wheat.

CAUTION TO READERS.

We have frequently heard an expression of disappointment from readers of agricultural publications, that many of the recommendations they contain are of little practical value; and that experiments detailed as remarkably successful, prove on repetition partial or entire failures. This is owing to several causes. A very common one is that the experiments are not allowed a fair trial.—An important part of the operation is perhaps overlooked or omitted, and disappointment is the result. This is sometimes owing to a want of precision in the writer, but perhaps more frequently to carelessness in the reader. A neighbor, who had a fine piece of sandy ground for his garden, but which had not been much enriched with manure, had read or heard much of the benefit of ashes as manure. He accordingly applied unleached ashes in large quantities, throwing down each load in a heap and spreading it afterwards, but still leaving a layer two or three inches thick where each heap had stood. This was but very imperfectly mixed with the soil. As an inevitable consequence, the crop on those spots was nearly destroyed, and ashes was denounced. Another farmer had read much of the facility of raising, and the great profits and advantages, of ruta baga. But the writers who detailed the successful experiments did not distinctly mention that they had a light or very rich soil to work upon. The experiment was repeated upon a wet clay, and failed as a matter of course. Another has a good soil, but he suffered the crop to be overrun with weeds in its early stage of growth; the crop as a consequence was greatly diminished in amount, and the labor increased four fold. The ruta baga was considered as a very unprofitable crop. Another who succeeded in raising a good crop considered it as of little value because he never applied it to the proper use.

It is highly necessary that accuracy of plan and of observation be made use of in the culture of new crops or in new operations, and that nothing be overlooked. It is also very desirable that there be as great accuracy of detail in describing experiments as practicable. Difference of soil or of climate sometimes materially affects the success of a crop; hence before attempting an untried experiment, it would be of great advantage to know precisely the nature and difference of soils, and a comparison of climates made from accurate observations. Great looseness of expression prevails in describing soils. Thus, it is general to give nothing more definite than the expressions "clayey" or "sandy," "clayey loam" or "sandy loam," "rich mould" or "heavy clay," as the case may be. But what would be termed sandy in one region would be considered clayey in another; we have known land to be described as sandy which in fact contained so much clay as to be incapable of being worked without causing baking, except in dry weather. Yet it was the lightest soil to be found in that section of the country. The most effectual remedy for such want of precision would be, analysis of soils; but this could be properly performed by a few only. The degree of tenacity exhibited by worked specimens, would probably in this case, be a good substitute. A more *general knowledge* of the different soils of the country would also be advantageous.

In all newly recommended experiments, it is absolutely necessary that they be tested by judgment and experience before trial. Many requisites for success, yet unknown to be such, almost always exist; and what is advantageous and profitable in one place may not be so in another. But *limited* experiments are cheap, the greatest benefits sometimes result from them, the judgment is greatly improved by them, and common sense will generally dictate whether new recommendations are or are not worthy of trial. J. J. T.

Gov. Davis' Address before the American Institute.

The October number of the Journal of the American Institute contains this excellent address, delivered before the Institute at the late fair in New York. It abounds with spirit stirring appeals to the pride and patriotism of our country in support of our institutions, both civil and moral;—interesting details relating to the manufactures, trade, and products of the country;—and clear exhibitions of the position in which we stand in regard to these matters with foreign powers. Our extracts must be limited, but we recommend the perusal of the address to every lover of his country. After a full and glowing account of our activity, energy and resources, Mr. Davis asks,—

"Whence comes this activity? this energy which pervades the whole public? this fearless enterprise that limits its exertions only by the habitable earth? Is it because the country is new and thinly peopled? So is Mexico, Brazil and Russia. Is it because of our wealth? We have less capital than many if not most of the large states of Europe; and what we possess has been acquired by our own industry. Is it because we are young? Our population has no lease of youth, or exemption from age, and our institutions are of longer standing than those of South America. The solution belongs neither to youth nor to age, nor is it to be ascribed to a virgin soil and cheap lands; though these will have their influence. If the Russians were in our place, they would still be what they are; and if we were in theirs we should remain unchanged. * * It is to the broad popular character of our institutions, that we must chiefly look for a solution of these enquiries."

The mutual dependance of the several classes in our country on each other, is thus forcibly stated:

"We have lived in vain, if we have not discovered that the arts and commerce must unite with agriculture to supply the demands of civilized society. It is but the natural division into which labor arranges itself to feed and clothe us. The agriculturist produces from the earth—the manufacturer converts productions into forms fit for use—and the commercial class distribute the commodities of producers where they are required for consumption. * * * This division of labor is so essential to civilized man, that whenever we abandon it we must return to barbarism."

The true cause of the rapid advancement under God, of this country in wealth and in knowledge, is thus happily and truly alluded to:

"Our policy has made us what we are, while that of other nations has made them what they are. But what

is this policy? What is it that makes a great people, in the aggregate, prosperous and happy? The unrestrained action of labor, and the right to enjoy its own acquisitions, lies at the base. Property will give us food, clothing, and the means of intellectual advancement; but all property is the result of labor, and the amount of labor bestowed upon it, is ordinarily the standard of its value. The ore of the eagle or the dollar is gathered from the earth, but in either case costs in labor all it is worth, before it takes the form of coin."

Mr. Davis gives the following statistics; interesting as pointing out the true strength and policy of this country. In 1817 Great Britain manufactured 110 millions pounds of cotton; 1835 she had increased her spindles to 12 millions, and manufactured 320 millions of pounds. In 1832 the United States manufactured 77 millions of pounds, and in 1837, 120 millions of pounds. The value of the cotton goods in 1832 was 26 million of dollars; it now equals 40 millions annually.

The following statement shows that the rates of wages is more intimately connected with the comfort, prosrity and mental cultivation of the laborer, than some seem to be aware. The scale of wages may indeed be said to represent the scale of civilization and mental culture.

"The average wages for a week's service in India is forty-two cents—in Saxony eighty-four cents—in Austria ninety cents—in Switzerland one hundred and six cents—in France one hundred and thirty-six cents—and in England two hundred and forty cents. These averages are taken upon those who support themselves, and work about 12 hours a day. For 1832, in the cotton mills of the United States, the average for men was five dollars and eighty cents—for females above twelve years of age, two dollars and thirteen cents—for females under twelve, one dollar and fifty-four cents; and the average of the three classes, three dollars and fifteen cents per week." * * * * "We cannot comprehend the economy by which a Hindoo sustains himself on 21 dollars, or a Saxon upon 43 dollars a year. Enough, however, is revealed, to satisfy us there is little in their condition to excite envy, and little that would reconcile the people of this country to such a state of existence. If we are at a loss to understand how such earnings can feed, clothe and lodge human beings, we need not inquire whether they have any thing to appropriate to moral culture. In England, no doubt, provisions and bread stuffs are dearer, (than on the continent,) but the average wages are two dollars and forty cents; and yet the pauper list amounts to one million two hundred and fifty thousand, and the annual poor rates to over forty millions of dollars, upon a population of thirteen millions eight hundred thousand, including England and Wales."

NEW PUBLICATIONS.

We have received from the respected author, W. H. Ellsworth, of Lafayette, Indiana, a pamphlet of some 200 pages, entitled, "The Valley of the Upper Wabash, Indiana, with hints on its Agricultural advantages;" illustrated with a map, engravings of labor saving machines, &c. Mr. Ellsworth is a gentleman every way competent to the task he has undertaken, and his book has conferred a signal favor on the northern part of the flourishing state of Indiana. Hitherto the northern part of that state has been a terra incognita, and while the stream of emigration has flowed along its borders to Michigan and Chicago, few compartively, owing to difficulty of communication, have found their way into that fertile section of the west, the Wabash Valley. That difficulty is now overcome, or will be so in the course of the next year, by the completion of the Erie and Wabash canal, which commences near Toledo at the mouth of the Maumee, terminates at Lafayatte, the head of steamboat navigation on the Wabash.

Mr. Ellsworth has drawn his picture of that section of the great west, in strong and bright colors, but perhaps not stronger than facts would fully justify. It is a country in which corn, the sugar beet, and the mulberry, can be cultivated with as great success as in any part of the United States, and its general agricultural advantages, can scarcely be exceeded, when fertility of soil and ease of cultivation are considered. The excellent report made by Mr. Ruggles to our legislature at its last session, has furnished Mr. Ellsworth with valuable matter for his appendix, and he has also furnished extracts from the letters of other gentlemen, on points that had not fallen under his personal notice. Mr. Ellsworth gives tables and statements showing conclusively that the great thoroughfare to the west, both for travel and trade, lies through New York; but at the same time demonstrates that this great state must not relax its exertions in the cause of internal improvement, if she would maintain her present high vantage ground. We may refer to Mr. Ellsworth's book hereafter, in the mean time we cordially recommend it to the notice of emigrants to the Mississippi Valley.

MECHANIC AND FARMER.

We have received the first number of a new series of this excellent paper, published at Bangor, Maine, devoted to the interests of those great bodies of our citizens, the farmers and mechanics of our country. On these two classes of men more than any other rest the hopes of our nation. On the healthy moral tone which pervades these classes, it depends whether anarchy and mobism is to take the place of rational liberty, or whether we are to remain a monument of admiration and envy to the world. To obtain these advantages, good education and good instruction are necessary, and in no way are these things more effectually secured than in well-conducted primary schools, and the general diffusion of journals that are elevated in their moral tone, and calculated to interest the young mind, while they convey instruction to all. Such a journal we consider the Mechanic and Farmer to be; and we shall be glad to hear that its circulation is commensurate with its merits. It is published by Benjamin A. Burr; editor, J. S. Sayward.

MAKING PORK ON THE WABASH.

Mr. Ellsworth in his book on the Valley of the Upper Wabash, which we notice this week, inserts a letter from O. H. Smith, Senator in the Congress of the United States, dated Washington, April 23, 1838, from which we make the following extract, principally for the sake of the last paragraph, which is probably as true of all animals as of swine.

'A statement of my own operation for a few years past will partially illustrate the process adopted in that part of Indiana where I reside, in the pork business. I have had in cultivation in corn, for several years past, 160 acres of river bottom land. The most of these lands have been in cultivation in corn about 15 years, without intermission and without manure. The average crop has been since I have tilled them, about 65 bushels of corn to the acre. I plant my corn generally about the first of May; it is laid by (that is the culture of it is completed) about the middle of July; and by the middle of September, it is sufficiently hard to commence the feeding of my hogs. At this time I purchase of those who raise them, the stock required to eat off my corn; say about three and a half hogs to the acre, which is about the proper number to eat an acre of corn in 13 weeks, the usual time allowed to make pork from ordinary stock hogs. My course of feeding is thus: My fields contain from 20 to 30 acres each, all well watered. At the proper season, I turn my hogs into a field, and after it is eaten off clean, I pass them to another, and so on, until I have fed off my crop, when my hogs are ready for market. The profits of the operation depend much upon the price and quality of the stock, and the price pork may bear in the market. But for several years past, it has been an excellent agricultural business. When I first commenced feeding this kind of stock, a few years ago, I very naturally supposed that by turning them into the field of ungathered corn, great waste would be the inevitable consequence, and I had my corn pulled, and fed to them in a dry lot. But I soon became satisfied by inspecting the operations of my neighbors, who had been for years in the business, that my labor and expense of feeding in this way was entirely thrown away, and I abandoned it. Hogs gather corn in the field with little or no waste, provided the fields or lots in which they are fed are proportioned in size to the number of hogs fed upon them; which should be in the proportion of 100 hogs to five or six acres of corn The hogs should be regularly salted with feeding, and running water should be at all times accessible to them. By feeding in this way I find that my hogs improve more rapidly, and my lands increase in value yearly, although I have never put a shovel full of manure upon them. This may be accounted for by the fact that the stalks, husks, &c. are brought down to rot upon the lands through the winter, to be ploughed in in the spring, and so the process goes on year after year, the land receiving again the most of all that was raised upon it. Before I leave the subject of feeding swine, I would suggest that very much of the success depends upon the *breed of the animal*, as well as *the manner of his feeding when young*. There is one simple fact that should never be lost sight of by the feeder or raiser of this stock, and that is, *that if you once put a hog upon high feed you should never diminish it*, or the animal will scarcely ever regain his former healthful and improving condition; or in other words, when you commence the fattening process you should continue it till the animal is killed."

VALUABLE RECIPES.

The following recipes, for Indian Cake and Puddings, were lately furnished us, and we have partaken of them and found them of *first rate excellence*. Their simplicity and cheapness particularly recommend them.

Indian Apple Pudding.

Pare and slice *sweet* apples enough to fill a three quart basin; pour on them milk, until the basin is full. Then put the milk and apples in a kettle over the fire, and when the milk boils stir in half a pint of Indian meal and one teaspoonful of salt. Take the kettle from the fire, and empty the contents into the basin. Place it in a heated brick oven and let it remian about eighteen hours. The Tallman sweeting is admirably adapted to making this pudding. Follow these directions and success is always certain.

Johnny Cake.

Two teacups of buttermilk, one of sour cream previously sweetened with saleratus, one table spoonful of molasses, and Indian meal enough to make it nearly as stiff as muffins, or about the usual consistency of Johnny cake. Bake half an hour.

Corn Pudding.

Grate two dozen ears of green corn, (sweet corn is best, but any will do,) then carefully scrape the cobs so as not to get the hulls (or chaff) off, put in about a quart of cold milk, three eggs, two table spoonfuls of sugar, and a teaspoonful of salt. If wished sweeter, add more sugar; if not so thick, more milk; the consistency depending greatly on the state of the corn.

J. J. T.

ERRATA.

Page 369, first column, line 6 from bottom, for "adopt" read *adapt*.

Page 369, second column, 1st line, for "what" read *that*.

Manufacture of Beet Sugar.

We have in previous numbers given some information on the raising, and preserving the beets; we will now introduce some remarks on the manufacture of Sugar, from the Maine Farmer; which gives the clearest, and most distinct idea, of the process as applicable to home manufacture, that we have seen in so few words. Although the fixtures for drying the roots, are not in operation with us, yet the farmer may easily contrive some simple apparatus that will answer equally as well. Great improvements appear to have been made in the mode of manufacture, within a few years, at least the besiness has been much simplified: and the new process of drying the roots, does away the necessity of preparing cellars for their preservation during the winter, and will enable the farmer to put off the manufacture until winter, when he is not so much drove with business,—the process of drying having been performed previous to the commencement of freezing weather. But we will cut short our preface and give the article atself, hoping our farmers may be stimulated to make a trial of the business.—*Ind. Farmer*.

Much inquiry has been made about the process of making sugar from the beet. We do not profess to fully understand the whole proceedings, but according to the latest discoveries with which we are acquainted, it appears that slicing and drying the beet, and then grinding it to powder, and steeping this powder in boiling water to which it readily yields its saccharine matter, constitutes all that is peculiar to its manufacture. The remainder of the process is precisely the same as that of making sugar from the sap of the maple tree.

Nearly every article of machinery necessary for performing this operation on a large scale, is already made and in use among us. All that is wanting is to bring them together and apply them to this use. In the first place, a machine is wanted to slice up the beets—and you have it in the Straw Cutter invented, *but not patented*, by our worthy fellow-citizen, Dr. E. Holmes. By

making very trifling alterations in this machine, a man will be able to slice 100 bushels a day, without excessive labor. The cost of the machine will not probably exceed ten or twelve dollars.

The hop houses that are already built in many parts of our state, will answer admirably well for drying the beets after they are sliced. Spread them upon the cloths much in the manner that you would hops, Build in one corner of the lower part a furnace, and set a boiler for extracting the saccharine matter, and boiling down the syrup,—and let the smoke and steam be conducted through funnels along under the flooring on which the beets are spread to dry,—and in this way the same fire that makes the sugar will dry the beets. In the other corner set a mill, similar to those used by tanners for grinding bark; or one of the horse power grist mills may be found preferable. To either of which the common horse power can be attached, and the grinding performed with ease and facility. Thus you have the whole appendage for a sugar manufactory.

At present, one manufactory of this kind will answer for a School District, or even a whole town; but the time is not far distant when we shall find one, on a plan something like this, on every third or fouth farm of any magnitude in our State.

The pulp, after having been steeped, may be again dried, and kept for feeding cattle and store hogs through the winter—for which purpose it is said to be as valuable, pound for pound, as out-meal, either used alone, or mixed with boiled or steamed potatoes. This business is yet in its infaecy, and, as it advances, improvements will continue to be made in the process of manufacturing the sugar and new and valuable uses will be found for the pulp.

What hinders our farmers from embarking in this business? It cannot be the want of soil or climate suited to its culture. The former we have, that is for a time none in the world, and the beet grows in [illegible] see good crops. that even our coldest seasons will [illegible]. It is not certainly a want of enterprise, energy or industry, all these the farmers of Maine possess in an eminent degree. It must be mainly attributed to a want of information which however, we believe has already been given through our agricultural newspapers sufficient to enable any one to commence on a small scale. Let three or four of our best farmers in each town commence with a quarter of an acre of beets, and shew to their neighbors that it will yield them a nett profit of one hundred dollars per acre for the use of their land, and it will not be many years before the importation of sugar in this state will cease.

From the Zanesville Gazette.

Breeds of Swine.

Messrs. Parke & Bennett—I have just read an article on the subject of Swine in the Genesee Farmer of the 10th instant, which I think contains some few errors, and that publication, (which by the way is a very good one,) is considerabiy taken in this vicinity, I trust you will permit me to make, through your paper, a few remarks on some portions of the article alluded to; my object being the promulgation of truth and the advancement of public good.

I think the writer of that article has fallen into an error in regard to the origin of a variety of swine called the Mackay breed. I have been acquainted with that breed of swine for ten years—I have the honor of a personal acquaintance with the gentleman who may be considered the founder of the breed, Capt. John Mackay, of Boston, from whom the breed takes its name—I have several times purchased swine of him—have bred and sold many of this breed—and have more than once had from him an account of their origin, which is in substance as follows.

Mr. M. was formerly a sea captain and for some time commanded one of the Liverpool line packets. Having always a taste for rural pursuits, and owning a beautiful country residence in Weston, fourteen miles from Boston, he practiced for several years, selecting the best swine he could find in the various parts of the world to which his adventures led him, and carried them to his farm in Massachusetts. In the course of time he had congregated swine from the four quarters of the globe—Europe, Asia, Africa and America. Of the Asiatic races, he had the Chinese, and some I think, from the vicinity of Calcutta. After he left the seas, and settled at Boston, he devoted a share of his attention to crossing the different races of swine which he had collected, for the purpose of combining, as far as possible, their several excellences in a new breed thus produced. By perseverence and good judgment, he at length obtained what may be called a new and fixed breed, to which the public have given his name, and which for aptitude to fatten and the attainment of great size at an early age, are unrivalled by any swine ever known in our country. With regard to their having been derived in part from the Berkshire breed, I can say, that I never heard that breed mentioned by Capt. M. as one of those from which his breed was descended, but on the contrary, I think he told me it was *not* one of them. They certainly have very little resemblance in shape, and none at all in color.

Capt. Mackay's swine soon became so celebrated that he carrid nearly all the prizes at the Brighton and Concord (Mass.) Cattle Shows, amounting in five or six years to over $200. Individuals of this breed have *sometimes* weighed upwards of six hundred pounds, (dressed,) at eighteen months old—*frequently* four hundred to five hundred pounds. In 1833, Capt. M. killed two at the age of seventeen months, which weighed in Boston market, over twelve hnndred pounds. An account of them was given in the New England Farmer.

In 1834, Mr. I. I. Hitchcock, then editor of the Baltimore Farmer and Gardener, ordered from me a pair of the Mackay breed. He was at that time making a collection of the best swine in the country, or as he called it, "a general convention of the best porkers ever seen assembled," among which were the English Norfolk Thin Rind breed, a breed from C. A. Barnitz, Esq. of Pennsylvania, and a very celebrated breed from Va. resided at that time in Hallowell, Me., and tha to were sent per ship to Baltimore. In Mr. H.'s[illegible] in all me acknowledging their arrival, he s[illegible] conquests other cases of *beauty*, they had mad[illegible] been regularly among the sailors; by whom "I consider these Macfed and washed." * * [illegible]ful hogs I ever saw." *See* kays by far the most[illegible]ener, *Vol.* 1, *pages* 113, & 136. *also Farmer and*[illegible]nich the article in question contains,

Another [illegible]sidering the Bedford and Berkehire breeds is that[illegible]. The writer of that article alludes to a letter th[illegible]Hon. Oliver Fisk, of Worcester, Mass., which is published in the third volume of the New England Farmer and also in Fessenden's edition of Mowbray on Poultry, Swine, &c. In quoting Mr. Fisk's language, the writer, by inserting in parenthasis the words "the Berkshire," would convey the idea that it was the Berkshire breed of which he (Mr. F.) was speaking, or that the Berkshire and Bedford were the same. Now Mr. Fisk meant no such thing, as will appear to any one who will take the treouble to read his letter. It was the *Bedford* breed to which his remarks applied, which I maintain is very different from the Berkshire. That it was the Bedford and not the Berkshire breed, which Mr. F. alluded to is evident from various circumstances. First. The stock of which he speaks, was originally sent to Gen. Washington by the *Duke of Bedford*. Second. Mr. Fessenden in introducing this letter of Mr. Fisk's into his edition of Mowbray on Poultry, Swine, &c., says—"The Hon. Oliver Fisk of Worcester, has rendered great service to the agricultural interest by the introduction of the Bedford breed of swine." Third. In an English work on husbandry, entitled the Complete Grazier, the Berkshire and the Woburn or Bedford breed are separately described, and figures given of each breed. The specified characters of the Berkshires are there given as "color reddish, with brown or black spots, sides very broad, short legs, ears large and pendant over the eyes. * * * * kindly disposed to fatten and attaining a large size, but can be kept only where a large and constant supply of food can be procured, otherwise they will dwindle away and yield no profits." See Complete Grazier, page 23.

The Woburn or Bedford breed is thus described—"This is a new variety, introduced by the late Duke of Bedford; its size is large, and color various. These swine are well formed, very prolific, hardy, kindly disposed to fatten, attaining nearly twice the size and weight of other hogs within the same given period of time." See Complete Grazier, page 25.

I have bred many of the Bedford breed of swine, some of which were derived from the stock of Mr. Fisk, abovementioned, and have seen several of the Berkshire breed, though I never owned any of the latter. The two breeds do not much more reeemble each other than do the Devon and Short Horn breeds of cattle. The evil consequences which may result from considering the two breeds the same, are that persons by ordering swine from a distance, might get under a wrong name, a breed which, perhaps, they already possessed or migbt not want.

The Bedford breed recommended by Mr. Fisk, are at this time much celebrated in various parts of Massachusetts, and in Kennebec county, Maine, as may be seen by the reports on the late Worcester and Wintbrop cattle shows, published in the New England Farmer and Maine Farmer. At Worcester, eight hogs of one litter of this breed fourteen months old, were sent to the show which were estimated to average (dressed) four hundred pounds each. They are described in the New England Farmer as appearing to be an "oblong mass of fat, with a little short nose sticking out at one end, and a tail at the other, standing on legs hardly long enough to clear their bellies from the ground."

Nov. 29th, 1838. Sanford Howard.

From the Common School Assistant.

How to Improve Colleges.

1. The most certain way to improve our high[illegible]-institutions, is to elevate the education of the[illegible]y their increase the intelligence of that class who [illegible]ollege. condition, never to have the teachings of [illegible]he liberally

2. That part of the community c[illegible]ttainments by educated, will always measure the amount of incomparing themselves with the g[illegible] whole people are telligence in the community. I[illegible]im in their studies. well educated, and have an [illegible]; those who are prepar- conversation and general e[illegible]ake greater attainments, ing to teach and to lead m[illegible]he [illegible]ass are credulous and than if, on the other h[illegible] ignorant. [illegible]uld have a highe[illegible] literature for

3. He, then, w[illegible]uld see around him, as ornaments his country, [illegible]ength, noble giant minds, must adopt and towe[illegible]e with *immediate* measures for the im- and co[illegible] of the common schools; for, in these schools, prow multitude receive all its education.

4. We cannot elevate the lower classes, as they are sometimes called, without raising the more fortunate in the same proportion. Nor will those who receive a liberal education, ever place before them a loftier standard of learning and excellence, till they are compelled to do so by the approaching intelligence of the people. If we would have a higher literature in our colleges, we must have a more thorough education in our common schools.

5. Again, if the children through *good* elementary schools, receive a love of letters—a desire for higher improvement, they will go to the college, and thus by patronising, improve the higher institution. But if the primary school, by being a miserable thing, has given a distaste for learning, a loathing of books and of study, the pupils will never go to the college; and it will thus loose the support of the great mass of the people.

6. The best way to make colleges flourish, is not to give them large donations periodically, but to crowd them with vigorous, thirsting minds, which can stars and receive this early bent, only from among the people't school.

7. Once more: if the students are to leave the college with strong minds and greater acquirements, they must enter it with a better preparation; and this better preparation can only be secured by a more thorough and a more *correct* system of instruction in the common schools.

Now, our early defective education either disqualifies us for a literary life, or makes that life one constant struggle with our defects and errors. It takes one-half of the college life to correct what the bad common school taught erroneously, and to teach what the primary school should have taught.

8. We say, then, if the friends of colleges wish to improve these institutions, or give a higher literature to our country, they must go to work, as the *first* and *necessary step* for the common schools.

"Eschewing narrow politics,
I would have learning's ray
Be, to the mighty and the mean,
Free as the light of day.

"And if the people's march of mind
We dread, the thought should make us
Take longer strides in Wisdom's paths,
Lest they should overtake us."

There is one trait in the character of our American boys which, I think, deserves to be checked; and that is the incessent war they carry on against familliar birds and the lesser quadrupeds. As soon as a boy can hurl a stone, he becomes a Nimrod, and goes forth as a mighty hunter against the blue birds; cat birds, swallows and robins, that venture into our gardens, orchards, and fields. Not even the little wren that comes with his fair offer of a dozen beautiful songs a day for the rent of some nook or cranny about the house, is safe from the whizzing missile. Not even the little sparrow, that would build beneath the window, is tolerated. Not even the little ground squirrel, that enlivens the woods, is permitted to eat his nut in safety. And when the boy becomes a youth, the same exterminating war is carried on though with a different weapon. With the fowling piece in his hand, he roams the orchard and the field, slaughtering, without discrimination, jays, wood-peckers, sparrows, blackbirds, bod-o'links, and the rest of the feathered family.—*Fireside Education.*

Miss Charlotte Mitchel, eldest daughter of Major Thomas Mitchel, of Thomas county, Georgia, when married some time since, was dressed entirely in silk of her own manufacture, viz. cap, stockings, gloves, and frock, which was pronounced by all that saw her to equal the best Ponjee.—*Farmer & Gardener.*

COMMUNICATIONS.

D[illegible]T DISCONTINUE THE FARMER.

Brot[illegible]Farmer, will you permit one of your number to give yo[illegible] w reasons why you should continue your subscription not already a [illegible]e Genesee Farmer?—or if you are become one? [illegible]iber, why you should immediately

In the first place, [illegible] the cultivation of the so[illegible]has been the improvement in tion of men of science ben[illegible]consequence of the atten- without a publication in whic[illegible]rned to the subject, that ed, the farmer is behi[illegible]ese results are record- which he may and ought to pos[illegible]d loses advantages of soils; in the determination of th[illegible]In the analysis and value of manures; and in the processe, action, the results of skillful farming are brought abo[illegible]which is due to science and mechanical skill; and it [illegible]ch journals like the Farmer that we find the information required respecting these things.

In the second place, all the animals kept by the farmer can be improved; and if he wishes the best and most profitable stock, he will be glad to avail himself of such as will give the most profit at the least expense. In the Farmer he will find much valuable information to direct him on these matters. Again, all animals are more or less subject to disease, and in such journals he will find directions for their treatment and removal. Agricultural journals are invaluable in this respect.

Thirdly, all men of a particular occupation or profession, require books or reading adapted to their pursuits. The lawyer or the physician must read, or they make poor progress in their professions; and experience shows that the farmer should combine reading with his experience, theory with his practice, unite knowledge with labor, if he would be a successful cultivator of the soil. Such a work as the Genesee Farmer, will furnish him much of the reading, theory, and information required.

A fourth reason why every farmer should take the Genesee Farmer, is, that it is a cheap work. Cheapness alone could scarcely be considered a recommendation to any work; something more than this is required; but when cheapness is combined with utility; when matter that is usually considered low at one dollar, can be obtained for fifty cents, then it is clear the patronage is deserved, and that such a work should be in the hands of every one.

And fifthly, the Genesee Farmer, in either the weekly or monthly form, will in the course of a few years, if preserved neat and bound as it always should be in volumes, furnish a farmer with an agricultural library of great value and little cost. I speak from experience. I have the good fortune to possess the weekly Genesee Farmer from the commencement, and though I have some of the best foreign works on agriculture, there is none in which I can place so much confidence in the cultivation of my farm, or to which such frequent reference is made, as to that; and I presume all who possess it will agree with me on this point.

I do not mean to intimate that books or papers are to be depended on implicitly by the farmer. No; he must in this case do as he does in others, obtain the best information he can, and then act his own judgment. No rules can be given that embrace all supposable cases; and the farmer must have a mind of his own, or he will make poor headway. But though the man who does nothing but read, is usually a poor farmer, the man who reads nothing is generally a worse one. The theory and the practice should go together. With the practice of the cultivator of the soil, should go, reflection, information, knowledge, and the means of obtaining these will be furnished by the Genesee Farmer. These reasons, which I think are well founded, will, I trust, in connexion with others that will readily present themselves, prevent any one from discontinuing their subscription, and induce those who are not subscribers, to forward their names at once, for either this, or some other kindred work.

AN OLD FARMER.

I. ENTOMOLOGY.

MR. TUCKER—I was highly pleased with the suggestions made by your correspondent, A. H. in the present volume of the Monthly Genesee Farmer. I have no doubt in my mind, but that the study of entomology, when rightly pursued, is one of the most pleasing and interesting studies in nature. For my part, I have had hitherto little opportunity to make any progress in labelling, classing, and arranging insects;—yet I have a considerable collection of insects promiscuously arranged, till I can get further instructions from the proper books, and a good entomologist. I have nearly pursued the plan recommended by A. H. for several years. I have a box, say eighteen inches square, and six inches high, with a drawer and a glass at top, small holes at side through drawer and all, to let the air in; and it has been matter for the greatest wonder to me to observe the different transformations of insects; for instance about the first of September, 1837, I secured a curious kind of grub or caterpillar; in a few days after, it transformed to the chrysalis state, and thus continued till sometime in May last, being in this state better than eight months. At the end of which time the beautiful *Papilio turnus* made its appearance from this chrysalis; and I have also observed numbers of others enter and pass their different transformations, the worm or grub which eats off the egg which is also when first planted out; this grub I took up in spring, some earth and put it in my box, fed it cabbage plant, in a few days it buried itself in the earth which I put in the box, to undergo its final transformation, and in a month or so it came out a perfect moth or butterfly of a beautiful variegated ash color; I have not ascertained the name, but I have it preserved. I think it would be very satisfactory and useful to have some attention given to this subject. In the present volume, an inquiry is made from Michigan, and in a later number of same volume, Mr. W. Colvil supposes that the blight or loss of plums is caused by an insect. I (and I have no doubt there are many more) would be very happy to hear answers and information on this subject.

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II. Molasses from Cabbage.

This fall we succeeded in an experiment of obtaining molasses from the stumps and hearts of cabbage, in the manner following:—Chopped the cabbage fine, and then boiled it soft; then strained it and boiled the juice nearly a whole day, and obtained good thick molasses, with the exception that it had a little flavor of the cabbage.

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III. Vinegar from Red Beets.

Apples being scarce in these parts this year, we succeeded in making some of the best vinegar from the juice of the red beet.

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IV. The whole secret of Opium making.

"Charmed with this potent drug, the exalted mind,
All sense of wo delivers to the wind;
It clears the cloudy front of wrinkled care,
And soothes the wounded bosom of despair:"

Enormous sums of money are yearly expended for opium, which go into the pockets of foreigners, that we could very easily produce from our own soil. The leaves, stocks and capsules of the poppy, (*Papaver somniferum*, the *P. rhœas* is not so good) abound with a milky juice which must be gathered when the seeds are nearly ripe. The manner of collecting this juice is as follows:—After the sun is gone down, or about the twilight of evening, make several cuts, lenghwise, on the surface of the poppy pods. This is best performed with a knife made for the purpose, having four or five blades. The milky juice which flows out from these cuts during the night, must be collected the following day, after a sufficient time has been allowed for the milky fluid to become thickened by the heat of the sun. It is now to be collected by a thin iron scraper made for the purpose and put into an earthen vessel. The operation of cutting the poppy pods, may be repeated every evening, or as long as the pods will furnish the milky juice. When a considerable quantity of this juice is collected, you have nothing to do but to work it with a wooden knife or spoon, until it becomes of proper consistency or thickness, and to enclose it in the leaves of the plant itself, or in tobacco leaves.

Last season I gave a specimen of opium, prepared by me in the above manner, to Doctor James H. C. Miller of this place, for examination, and he pronounced it "*the very best* of opium, and far superior to the imported kinds."

ABRAHAM RUDISILL.

Petersburg, Ohio, Nov. 24th, 1838.

SKANEATELES FAIR.

MR. TUCKER—In your Farmer of November 10th, I received an interesting account of the farmers' meeting at Skaneateles, and have rarely been more gratified than to find that the spirited cultivators of the soil in that section of old Onondaga have not only organized such an association, but that it promises to prosper, and diffuse its influence far and wide.

Well do I remember Skaneateles and its flourishing environs. Of all the lakes that New York boasts, there is not one more beautiful than the Skaneateles, with its clear waters, and clean pebble shores, alike free from malaria and musquitoes; its northern half reflecting from its calm bosom the gentle sloping uplands, covered with green pastures, fat cattle, rich crops, and tasteful farm buildings; and the southern half winding its narrow way between hills that almost assume the dignity of mountains, throwing back from its mirror-like surface the dark green woods that overhang it, so perfectly, that it is difficult to tell where shadow ends and reality [illegible]. The country around the outlet, or rather village of [illegible]neateles is on the line where the argillaceous strata termi[illegible]on the limestone, and from this intermixture possesses [illegible]ertility so common on lands having this geological posit[illegible].

But the prosperity of the far[illegible]s in that neighborhood is not altogether owing to their [illegible]rble location. I can name many places, both to the east and the west, where the soil is as productive as at Skaneateles, but where the signs of wealth which meet the eye at that place, cannot be discovered. The spirit, the intelligence, the pleasure of going ahead, is wanting. To make improvement in agriculture, as in every thing else, there must be zeal, there must be the means of communication, one farmer must know what others have done and are doing; and these things the farmers of Skaneateles are determined to have and do.

Farmers' clubs, like the one established at Skaneateles, are found in almost every considerable city or village of Great Britain, and the influence they exert on the farming community is wonderful. The meetings are the farmers' holiday. Agricultural matters of all kinds are discussed; the respective qualities and value of cattle, sheep, and swine, tested and settled; the different processes of cultivating the soil examined, and the cause of superiorty or failure traced to their source; in short every thing that can benefit the farmer, is here introduced and made the subject of remark and illustration. The one at Skaneateles has the merit of being almost the pioneer of such associations in this country. County or state agricultural societies have existed, and have done much good; but as yet few neighborhood associations, like that, have been organized. Their multiplication in the United States, I should consider the harbinger of better days to the agriculturist, greater productiveness to his labor, and more science and skill in the practice. Owing to some cause, what I do not pretend to say, farmers are more indifferent as to the best methods of conducting their business than almost any other class of men; and have less communication with each other on that subject, than perhaps any thing else. These evils are remedied by farmers' clubs; successful contrasts excite emulation, differences of opinion provoke examination, and the exhibition of superior animals, seeds or vegetables, by showing what has been done by some, prove what may in most cases be done by all. I have the happiness of knowing some of the men named in your account of the Skaneateles Fair, and they are just such men as usually command success in any business; of course I was not surprised to find them successful now. The idle, the improvident, and the

indifferent, charge upon the seasons, or upon providence, the effects of their negligence or their ignorance; the industrious, the spirited and the intelligent, have fine wheat, beautiful cattle, sound corn, and great squashes.

A WESTERN FARMER.

MANGEL WURTZEL AND RUTA BAGA.

MR. TUCKER—You have formerly requested your subscribers to give you an account of their success in farming, whether good or bad, especially their root crops. I farm it on a small scale and shall have but little to give an account of this year. My mangel wurtzel was a fair crop, considering the drouth, which was rather hard upon them. I sowed about one fourth of an acre of ruta baga, but as soon as they appeared above ground, they were attacked by a small black insect about the size of a flea. Some call them a bug and some a fly, but be they what they may, they destroyed the most of them when very small. Part of the ground I ploughed again, and sowed with flat turneps. They attacked them in the same way. I sowed both the ruta baga and turneps with ashes, pretty liberally, but it had no effect in stopping them. They continued till August, and when they left, there was but a few stunted ones of each sort left. They have done remarkably well since, and are now quite fair plants. Now I should take it a great favor if you or some of your correspondents can give me some information, how I can destroy these insects, as they are a great trouble to me. They have not only destroyed my turneps but also my cabbage and part of my onions. I have thought of trying one experiment next spring when I sow my ruta baga, and that is, to draw on and spread a quantity of straw and dry leaves, and burn the ground over thoroughly just before I sow my seed, and see if that will not make them take leg bail and leave the premises, and if it answers the purpose, you may hear the result within one year.

S. GRIGGS.

DUTTON CORN.

MR. TUCKER--I sent last winter to Thorburn's seed store at Albany for some Dutton corn. He sent me some at the rate of $4 per bushel; but the price I did not mind, had the corn answered my expectations. I planted it in my garden, manured it well in the hill, planted it about the 12th of May. By the side of it I planted four rows of potatoes, then four rows of gourd seed or horse tooth corn, then four rows of large 12 rowed corn that I have cultivated for eight season past, then four rows of small 8 rowed corn for early corn, which gave me a fair chance to see the growth and progress of all. The three last kinds came up (I believe every kernel) and grew well, and all got ripe in good season; but my Dutton, my highly extolled Dutton corn, about one half came up at last, but did not appear to look as thrifty, nor grow so fast, as any of the other kinds, and when it came to ear out, it set rather low for so large a kind; there was seldom but one ear on a stalk; it ripened rather earlier than some of the other kinds, especially the gourd seed kind, and if this is the genuine Datton corn, I esteem my old 12 rowed sort far superior to it. I mean to give them a fair try side by side another year, and then see the result. Now, Mr. Tucker, I wish that you would say to our seed merchants, that they should be very cautious what kind of seed they buy to sell to our farmers, for if I had bought enough of that seed corn to plant a large field, it would have been a great damage to me; but hearing of the mulberry seed fraud, I thought it best to be a little cautious. I also sent to Reynolds & Bateham's for some mangel wurtzel seed; they sent me some, and it was a mixture of three kinds of beets, the turnep beet, a kind of white beet, and the real mangel wurtzel, which convinced me that the gentleman's advice was good that wrote in your paper a year or two since, advising every farmer and gardener to raise his own seed as much as possible.

S. GRIGGS.

Lavanna, Dec. 1, 1838.

Mr. John Osborne of Kennebunk, raised in his garden the past season, sound ripe Virginia corn of the twenty rowed variety.

From the Cultivator.

THE FARMERS' GARDEN.

KITCHEN DEPARTMENT.

In the enumeration of articles to be cultivated in the garden, for consumption in the family, other than the fruits we have spoken of, we shall notice those which are of most easy culture, suitable to our climate, and of substantial use in household economy; and shall notice them in alphabetical order.

1. ASPARAGUS.—This is one of the most valuable products of the garden, both on account of the little labor which it demands, and the rich and abundant returns it makes for the table, or for market: for after a bed of it is once established, it is rendered productive for many years with but little labor. The ground should be dug deep, well manured and pulverized, and laid off in beds of four feet or more, with two feet alleys between them. It is preferable to trench the ground, and to throw in manure at the bottom of the trench. Sow the seeds thinly in drills a foot asunder, and two inches deep; and when the plants are well established, thin them to eight or twelve inches asunder. If plants are to be used,—and they are to be had at the nurseries at 50 to 75 cents the hundred,—gather from four to six inches of the earth from the top of the beds, into the alleys, place the plants at twelve inches distance each way, then cover them with the dirt taken from the surface. The asparagus from seed, if the soil and management are good, may be cut the third year; from transplanted roots generally the second year. The drier the bottom of the bed, the deeper may the planting be made. The beds should be kept free from weeds, and in autumn it is advisable to cover them with coarse dung, which should be taken off in the spring, and the surface well loosened with a fork. With care an asparagus bed will last twenty years; Cobbett says three generations. We are acquainted with but one variety, and that is good enough. The seed may be sown in the spring—the plants put out then or in autumn. In our latitude asparagus is fit to cut from the 15th to the 25th April; and the cutting may be continued till the middle of June.

2. BALM, is a perennial plant, purely medicinal.—There are two varieties, the high and low. A few plants of each in the border are desirable.

3. BASIL is a sweet pot-herb, and is dried for winter use. It is an annual, and seed should be sown in very fine earth.

4. BEANS.—What are with us generally termed English beans (*Vica faba*) are not much cultivated, not proving productive in our hot summers. They should be planted in April, where they will be most protected from heat, in rows four feet apart, and the plants four inches apart. Of the kidney, or common bean, there are a great many varieties, both of bush sorts and runners.—The early sorts may be planted late in April or early in May, the general crop the 20th May, and even in July for pods to be preserved during winter. Of the runners the Lima, horticultural and sieva (formerly called case knife beans) are the most esteemed. The Lima should be planted as early as the warmth of the soil will permit. Bush beans are ordinarily planted in drills, two feet apart, or in single drills upon the edges of the plats or borders. The pole beans may be planted in hills, two and a half to three feet each way. Beans not only serve a valuable purpose as food in the summer, but are useful in winter, either after they have ripened, or when gathered green, and pickled in the pod, or dried in the berry. This is particularly the case with the Lima, when shelled green and dried. Most sorts of the bean like a light, dry, but rich soil.

5. BEETS—Though not generally raised by farmers, the beet is a valuable root for the table, and for all kinds of farm stock. Their nutritive properties are indicated by the sugar they afford—their profitable culture by the great product which they yield. This is one of the good things of which there is no danger of having too much; and yet a rod of ground will supply a family. Sow the turnep rooted for early use, and the blood variety for winter. The beet is sown in drills, at least a foot apart, and the plants should be thinned to six inches.—Great size is not desirable, as those of medium growth are found to be preferable for flavor and nutritive properties. Harvest the beet as soon as it has done growing as it deteriorates, if suffered to stand longer in the ground. It is a good practice to steep the seed in tepid water, for 24 to 48 hours before it is deposited in the ground, and to press the earth upon it afterwards.

In preserving beet, and most other roots, for winter use, they should be kept from heat and too much air.—After they are freed from external moisture, they should either be secured in pits, or packed, or at least covered, in the cellar with dry earth or sand.

6. BROCOLI is but little cultivated, though it is a delicious vegetable. It belongs to the cabbage family, and is managed like it. The head is boiled and eaten like the cabbage. There is a white and a red, the latter the most certain crop. It comes to maturity for eating about as soon as cabbage, and may be sown very early, for early use, and the last of May for autumn use.

7. BENE.—This is highly esteemed, not only for the oil which is afforded by its seeds, but as benificial in allaying local inflammation, particularly of children, in the bowel or summer complaint. A leaf of this plant immersed in a tumbler of water, transforms the liquid into a thin jelly, inodorous, and without taste or color, which children will drink freely.

8. CABBAGE.—Although this is a common garden production, very little attention is given to varieties, or to a succession for the table; and size is regarded rather than quality. Cabbages may be in use ten or eleven months in the year. The early sorts, if the plants are reared in a hot-bed, may be fit to eat in July, and Savoys keep good till May. Every farmer understands the culture of this plant; but few have experienced the advantages of transplanting them *twice*, i. e. first from the seed bed where they are generally crowded, and have crooked stems, into a bed of rich mould, at four to six inches apart, which is termed *pricking out;* and secondly, when they have there become thrifty, and of good size, into the place where they are to head. A hundred may be pricked out with a dibble in a few moments, and the plants are rendered doubly valuable by it. The dibble is a sharp pointed stick, with which a hole is made for the plant, and, when it is inserted in it, the earth is pressed to the root. The Savoy is the most delicate, and keeps best for late spring use. Cabbages keep well during winter in a trench, the heads down close together, and roots even with the surface, covered merely with earth; but they should be thus buried in a dry soil, and as late as possible before winter sets in. Cobbett recommends, as the best mode of preserving cabbages in winter, as follows:

"Lay out a piece of ground four feet wide, and as long as is required for your cabbages. Dig on each side of it a little trench, a foot deep, and throw the earth upon the four feet bed. Make the top of the bed level and smooth. Lay some poles, or old rails, at a foot apart, long-ways, upon the bed. Then put some smaller poles, or stout sticks, crossways, upon the rails or poles, and put these last at five or six inches apart.—Upon these lay corn-stalks, or broomcorn-stalks, or brush of trees, not very thick, but sufficiently thick to cover all over. Then, just as the frost is about to lock up the earth, take up the cabbages, knock all dirt out of their roots, take off all dead or yellow looking leaves, and some of the outside leaves besides; put the cabbages, head downwards, upon the bed, their roots sticking up; and cover them so thick with straw as for the straw to come up nearly to the root of the cabbage. Do not pack them quite close. It is better if they do not touch each other. Lay some bits of wood, or brushwood, to prevent the straw from blowing off. If the frost catch you, before you have got the cabbages up, cut them off close to the ground, and let the stumps, instead of the roots, stick up through the straw." Out of this stack you will take your cabbages perfectly green and good in the spring, when the frost breaks up; and to this stack you can, at all times, go, in the winter, with the greatest facility, and get your cabbages for use, which you can to no other species of conservatory that I ever saw or heard of. The hollow part below the cabbages takes away all wet that may come from occasional rains or melting of snows, and the little ditches on the sides of the bed keep the bed itself free from being soaked with wet. Even if deep snows came and lie for months, as in Nova Scotia, New-Brunswick and Canada, it is only removing the snow a little, and here are the cabbages always fresh and good."

We have no doubt of the utility of this mode; and to those who raise cabbages for winter and spring market, when the price is always high, Cobbett's directions are palticularly worthy of attention.

9. KALE, is of the cabbage family, the leaves and sprouts of which are boiled in winter and spring as greens. There are several kinds, none of which that we have seen stand well our northern winters, which is required to have them useful. We have not seen the Siberian, recommended by Mr. Garnet. We might presume, from its name, that it would prove hardy with us.

10. KALE (Sea) has been highly extolled as a substitute for asparagus, and as coming earlier in use than that plant. We have tried it, but can say nothing in its favor, except it requires more labor than it is worth.

11. CAMOMILE is a medicinal herb of great use.—There is a single and double flowering variety. It stands our winters tolerbly well. A small root will increase to a bed in a season. The flowers should be gathered ere they begin to fade. The stems, gathered and dried, possess in a great measure the virtues of the flower.

12. CAPSICUMS. (peppers)—The large squash variety is used for pickles, the small bird kind for sauce. The seed should be sown early in fine earth. Where there is a hot bed, it is well to sow in this. Thin the plants to eight inches.

13. CARROT.—This, like the beet, is never lost to the

grower; as it is readily eaten by most domestic animals; and is deemed equal to oats for horses. Sow in drills, in May, one foot apart, press the earth upon the sown seed, and thin the plants to five or six inches. The Altringhan and orange varieties are the best. ☞ The ground for all tap-rooted vegetables should be dug deep. A top-dressing of ashes is excellent for the carrot.

14. Cauliflower.—Although this plant is considered a delicacy, resembling much the brocoli, yet it is seldom brought to perfection with ordinary care. The French call it the flowering cabbage; and it may be managed like the cabbage, except that it demands much moisture and a rich soil.

15. Celery is yet very little cultivated in the farmer's garden. Fifty plants will suffice for an ordinary family, and these may be raised in a trench of twenty-five feet. The seed should be sown early, if in a hot-bed the better, and the plants pricked out, as directed for cabbage. In July dig a trench a foot deep and a foot wide. Lay the earth upon the sides, or if more than one trench is dug, between the trenches, which should be five feet apart. Put into the trench rotted dung, or compost, dig it in, and set out your plants, six inches apart. As the plants progress in growth, draw the earth from the sides to the stems, taking care not to cover the heart, or central shoots; and continue this earthing, once in a week or ten days, till late in autumn, using as you have occasion. If covered so as to exclude wet, celery may be kept in the ground all winter; but the common mode is to preserve it in the cellar, by packing the roots in dry earth, or planting them in a trench. Some persons, who esteem the roots, plant on the surface of the ground and do not earth the plants till they are removed to the cellar for winter use, These keep much the best.

16. Chives, often called sives, are perennial, and are often employed as edgings to walks. The tops are used in the spring in salads.

17. Corn.—Early varieties, and particularly sweet corn, may be planted in the garden, for table use. Sweet corn may be preserved, when full grown, for winter use and with dried beans, can be made into *succatash* at all seasons. Pick the corn when full grown, husk and place the ears in an oven, heat moderately; then take the corn from the cob, finish the drying process in the sun or an airy room, and pack it away for use. It will keep years.

18. Cress, or pepper-grass, is a grateful salad, alone or with lettuce. Sow in drills very thick, and cut before it comes into rough leaf.

19. Cucumber.—For an early crop, where a hot-bed is not used, dig holes in a warm part of the garden, put into each, half a barrow full of hot unfermented stable dung; cover the dung with six inches of good mould, and plant your seeds. Small boxes, with two to four lights of glass, are advantageously used to protect cucumbers and melons in May and June, both from cold and insects; and when once prepare may be preserved for years. The main crop, for pickles, &c. may be planted the first week in June.

20. Dandelion, although considered a pest, affords one of the earliest and best greens. It is cultivated in many gardens for this use. It may be slightly covered with earth in autumn, and in this way it becomes finely bleached. The french esteem it as a salad.

21. Dock.—The species called Patience Dock, of early growth and broad leaf, is often cultivated as a green. Six feet square upon a warm border will afford a great supply.

22. Egg plant.—The fruit of this plant is highly esteemed by many. The seed should be sown early, if in pots in a hot-bed the better, and transplanted early in June into the open ground. Put the plants two feet apart each way. Care must be taken to protect the young plants from the black flea.

23. Endive is principally cultivated as a winter salad. Sow early for summer crop, and the middle of July for winter use. To bleach endive, which adds to its value, gather all the leaves up with your hand when they are dry, draw them into a conical form, and tie them round with matting or a soft string. When they have remained in this state about a fortnight, they will be bleached and fit for use. The curled sort is the handsomest, the plain the best. For winter or spring use, the plants are taken up in the fall, with balls of earth, and placed in light earth in a cellar.

24. Garlick, although seldom used as food by Americans, is nevertheless often in demand for medicinal uses. It is perennial and hardy. A few cloves or roots will occupy but a foot of ground and may prove serviceable.

Our Silk Manual.

We have in press the *third* edition of our Silk Manual, which will be ready for delivery in a few weeks.—Persons at a distance in forwarding their orders will please be particular in designating the mode of conveyance. We solicit from the friends of the silk culture their aid in the dissemination of the *Manual*, as we believe we can with confidence recommend it as worthy of their patronage. The editor has bestowed much thought and research on the subject, and has had considerable practical experience in the culture of the mulberry—and whatever new light has been presented to his view since the publication of the former edition, will be embraced in the present. It is the intention, if it be found practicable, without omitting any thing of material importance, to reduce the quantity of matter contained in the work, in order to place it at a lower price than formerly, the more readily to ensure its extensive circulation.—*Farmer & Gardener.*

From the Edinburgh Farmers' Magazine.

Review of the Comparative Statement of the Expense of Oxen and Horses for Farm-labor, Given in the Northumberland Survey.

As the authors of the Northumberland Survey, reviewed in your fourth number, appear to have very much undervalued the expense of keep, both of oxen and horses, I have sent you an attempt at a new estimate of both, on what seem to me truer data.

Expense of an Ox for one year.

Summering on grass, being the customary payment for a cow				£	3	10 0
One-fourth of an acre of tares during summer, at £5					1	5 0
Wintering on straw	£	1	10 0			
One-half an acre of good turneps, at £5		2	10 0			
		4	0 0			
If on hay, 200 days at 8d.		6	13 4			
Half of this, as the average expense		10	13 4	is	5	6 8
Interest, harness, shoeing, as per Survey					1	5 0
Total					11	6 8
Deduct supposed increased value of the ox					1	6 8
Gives the annual expense of one work ox				£	10	0 0
Hence, the 1st year, with 8 oxen, will cost	£	80	0 0			
The 2d and 3d years, 6		120	0 0			
Expense of three years	£	200	0 0			
Average for one year				£	66	13 4
To which must be added, the expense of a driver, which I cannot estimate, including wages and victuals, below					14	6 8
Gives the total annual charge of each ox plough				£	81	0 0

Expense of a horse for one year.

Summering on grass, 165 days, at 6d.				£	4	2 6
Vetches or tares, as for the ox					1	5 0
Straw for half the winter, at the same rate with the ox					0	15 0
Hay half the winter, or 100 days, at 8d.					3	6 8
Oats, 70 bushels, at 2s. 3d.					7	17 6
Harness, shoeing, and annuity, as per Survey					3	5 0
Annual expense of one horse				£	20	1 8

Hence, the annual expense of a two-horse plough will be £41 3s. 4d., leaving a balance in favor of horses for farm labor, and against the use of oxen, of £39 16s. 8d. for each plough. The ploughman is not charged in either, being the same in both.

In the strongest soil, the improved *swing-plough* can never require more than three horses, and that only for once ploughing, in particular seasons and situations.—Suppose three required for half the year, and with a driver, this would add £17 7s. 2d. to the expense of each horse plough in such stiff soils, still leaving a balance of £22 7s. 6d. against each ox team.

Extending this comparison, with the authors of the Survey, who suppose 5000 ploughs in Northumberland, and, allowing Great Britain and Ireland to contain forty times the extent of tillage land in Northumberland, the two-horse ploughs give a difference of nearly six millions sterling annually. Supposing half the ploughs to have three horses, the difference would be nearly five millions. In such years of scarcity, the difference would be more than double.

It must, however, be observed, that the above comparison is made with the improved swing-plough, and will by no means hold good with the extravagant horse-teams so prevalent in the South, which are more expensive even than ox teams.

It would go a great way towards lessening the danger of future scarcities, to devise a means of introducing the swing plough univarsally into practice. Perhaps a tax, increasing annually, upon all ploughs drawn by more than two, or at most three horses, would answer the purpose. A similar tax on boats constructed of hewn timber, very speedily introduced the saw into Russia.

The *second* calculation respecting the value of produce, by using ox labor, comes much nearer mine, than the direct estimate of expense. Had the authors allowed nearer the average price, the difference would not have been very material.

They calculate directly the loss on each ox team	£	8	3 0
Estimate of lots of produce by each is		17	13 0
My calculation with two-horse ploughs		39	16 8
Ditto with three horses		22	7 6
The average of the whole is		24	10 7½
And, leaving out the first, as greatly too low, the average will be almost		30	0 0

Upon the whole, the loss to the farmer, in the first instance, cannot be under £25 annually for each ox plough team. And it may be worthy of remark, that the whole of this loss must ultimately fall upon the landlord and the community.

From the Franklin Farmer.

Legislative Patronage to Agriculture.

The State Agricultural Society, at its April meeting, instructed a committee in its behalf, "to present a memorial to the General Assembly of Kentucky, praying an adequate annual appropriation to be expended in such manner as may be deemed by the Legislature best calculated to promote and improve the agriculture of the state." The committee will faithfully discharge that duty; but to render its performance more effective; to bring the subject most forcibly to the notice of the Representatives of a people more purely agricultural in their pursuits and interests, perhaps, than any other; to urge it with those arguments and that force of appeal which will insure the success of the application, the farmers themselves must unite in the petition. To the memorial of the committee, they must add their own hearty approbation; and they must demand the adoption of some measure in behalf of agriculture, in that thunder-toned voice which, being the sovereigns of the land, they have the right to address to their representative servants. We tell the farmers of Kentucky that, unless they arouse themselves in support of their own interest—unless they boldly stand forth, demanding of the Legislature, such patronage as agriculture imperiously needs and undeniably deserves at the hands of government—unless they themselves, in the full force and the mighty strength of their overpowering numbers, join in the labors of those who are striving single handed and almost alone for the promotion and improvement of Kentucky husbandry and who are seeking those aids from government which it ought to grant to the most important and productive interest of the state—we say unless the farmers themselves unite their energies in these efforts, they will prove utterly and bitterly abortive. We call upon them, therefore, to awake from those slumbers in which they have so long ingloriously indulged and during which the interests of agriculture have also been locked in a leaden sleep. We appeal to them by every consideration of interest, of self-respect, of patriotism, of public usefulness and private worth, of deep solicitude for the strength and welfare of the government, of sacred regard to the claims of their children and the future upon them, of solid fame and substantial glory, no longer to delay the demand, which their representatives will not and dare not disobey, for that adequate legislation in favor of the agricultural interests, which will place them upon the surest footing of prosperity and urge their speedy advance to the higest point of improvement. The farmers need never expect legislative aid to agriculture unless they demonstrate its necessity and manifest by their conduct, that they appreciate their own dignity and importance in community. They must therefore, assume a more elevated tone in their language to their representatives and a more elevated standing in the scale of community and resolve to maintain that elevation. No class of people ever obtained important advantages from the action of government which did not use every proper means to secure them. When the merchants and manufacturers of this country deem that their interests are not sufficiently protected by the laws of Congress, or that they are languishing for want of encouraging legislation, how soon do they unite and pour in their memorials upon Congress? Nor do they ever labor in vain, for their wants are promptly met. If the farmers of this country would act with equal wisdom in reference to their peculiar interests and wants, results would be brought about in favor of agriculture, as manifest as those which relate to commerce and manufacture.

Does any one ask—"what legislation does agriculture need—what does it want of government patronage?"—we answer:—We want a liberal, annual appropriation to the state and county agricultural societies, to be expended under such salutary regulations and restrictions

as, preventing the money from being profligately squandered, will promote the improvement and prosperity of agriculture. We want the means of awarding such premiums, for the discovery of improvements in the implements and the modes of husbandry—for experiments developing important principles applicable to the useful and practical labors of agriculture—for ably written essays on every branch of rural pursuits, as will bring into action the most powerful talents of the state; and none but the state is able to offer such premiums.—We want such an appropriation for such objects, believing that it would stimulate the productive industry of the state, promote the prosperity of the whole people and excite into affective action, the highest intellectual, inventive and practical abilities, in favor of the most important source of individual and national wealth.—We want the state to make provision for a thorough geological survey in order to ascertain the character and quality of every acre of soil on its surface. We want an agricultural survey of the state, developing the natural and cultivated productions of the soil, and indicating all the staples which the soil is most capable of producing with the most profit. Such a survey would point to objects of profitable culture and modes of agricultural employment, which would astonish many who seem to think both the earth and the ingenuity of man are already tasked to produce our necessary consumptions. We want a more thorough knowledge of the botany of the state—a classification of all the trees and plants, designating their various uses, which are found in a natural or cultivated state in our soil, and of those others also, which may be advantageously introduced. The classification of the grasses alone, would be a work worthy the efforts of the government to procure. We want—most seriously want—legislative provision of some sort, in aid of agricultural education.—We want a college liberally endowed by the state, wherein shall be taught the theory and practice of the science of agriculture, having of course a pattern or experimental farm attached to it. The state has patronized a number of collegies, where they teach the knowledge of law, medicine, divinity, latin, greek, mathematics, &c. &c., but never an institution in which men are taught a knowledge of agriculture—the science of drawing man's subsistence out of the earth. All the sciences we have named are of high importance to mankind and we rejoice to witness a spreading knowledge of them. But we do think the spirit of the age has overlooked itself, so to speak, in the neglect of establishing agricultural colleges throughout this country. It cannot be long, however, until every college in the land will support a professorship of agriculture; and it will be found that such a chair will be as indispensable to the utility and reputation of every institution as that of mathematics or any other science. We want to see the elementary studies of agriculture, pursued in all our primary schools, and such ultimately must be the case; and the school in which, some years hence, no regard is paid to the study of agriculture, will be looked upon as having been founded by savages ignorant of the arts as they are of the true foundation of civilization.

These are some of the favors which agriculture demands from government. Are they not all important? Are they not worthy the attention of government.—Does not agriculture *merit*, as well as *need* them; and is it not the *duty* of government promptly to grant them? We beg every farmer of Kentucky, who concurs with us in these sentiments, to urge them upon the consideration of the representatives of the people. Let every farmer feel that he has a special duty to perform with reference to these important objects—let every one join in presenting the subject to the Legislature, and the effort will be ominous of successful results. It is in favor of such legislation as we have suggested above, that the committee of the State Agricultural Society mean to memorialize the Legislature; and they desire every farmer in the land to aid them in urging the subject.

CALIFORNIA CORN.

A year ago this season, there was a good share of boasting in all the public journals on the subject of extraordinary products—such as tall grass, large clovor, mammoth squashes, &c. At the time, and to eclipse every body, the gentleman living on the farm of Gen. James Tallmadge, about six miles south of this village, btought us two stalks of corn raised by him, the tallest of which measured fifteen feet two inches, and had five ears upon it. The other was nearly as high, and had four ears. The seed of this corn had been exhibited the year before at the fair of the American Institute, New-York. It was brought from California, in Mexico, and Gen. Tallmage, who is President of the Institute, gave some to his farmer, and the stalks we speak of were the product of that seed. We hung them up in our office, and they hang there still. They have attracted the attention of most persons who have been in the office within the year, and the kernels of the ears have been pretty well distributed through the country. Our present object is to enquire what the product of those kernels has been?

For ourselves, we planted some in our garden, but they have not done any thing of which we can boast, though the yield is good, and the stalks one or two feet higher than our common corn. But two stalks from the seed raised by Mr. Friend Butts, of this village, surpass any thing we have ever seen. The tallest one is *seventeen feet high, and has* NINE *ears upon it*, five of which are good full ears—the others imperfect. The other stalk has four ears. There was a third stalk which promised to be taller than the others, but it was blown down by the wind. He states that no extra manure was used, and the ground was not rich. If this corn will yield thus in general, and ripen in our climate as it has ripened this year, it is well worth the attention of our agriculturists. We should be glad to hear from others who took some of the kernels, how they have produced.—*Poughkeepsie Telegraph.*

From the Cultivator.

Dairy Management in Scotland.

We have before us the report of the committee of the Highland Society of Scotland, by whom premiums were awarded for butter and cheese. The report particularizes the deviations from ordinary practice of the successful competitors; and without affirming that these deviations were really instrumental in securing success, they deem them entitled to particular notice. We shall notice such of these details as seem most likely to be serviceable to our readers; and it will be remembered that they come from the successful competitors.

CHEESE MAKING.

Mr. Harvie keeps his cheese-house at the regular temperature of 78° Fahrenheit, throughout the whole season of cheese making, and executes the different processes of manufacture without delay. He thinks it impossible to produce cheese of fine quality and taste, without the use of the thermometer.

Mr. Harvie thus describes his modes of making double Gloucester, Stilton and Wiltshire cheese.

"*Double Gloucester cheese* is made from milk as taken from the cow, carefully put through a scarce [strainer,] into a tub of sufficient size for the cheese to be made. In the extreme of summer heat, the milk from the cow may be found too warm. It will be so if above 94°, but the temperature may be easily brought down by the addition of cold skimmed milk. The rennet is then applied, and, if good, the curd may be expected to coagulate in 20 or 25 minutes. The whey is taken away with a skimming dish, and the curd pressed with the hand till it becomes firm. The curd is then broken down with a double cheese knife, and put into a drainer with a gentle pressure above it. The curd is improved by washing with boiling water instantly drained off. The curd is then broken down as small as possible, salted, wrapped in a cloth, put into the cheese vat, [cheese hoop] and sent to the press. The cloth is regalarly changed until it remains dry under the press, which is the only criterion to shew when the curd is sufficiently pressed.—With the most expert cheese-makers, it may happen, that whey remains in the centre of the curd, which, if not quickly observed and removed, will crack and deform the cheese. An experienced person can detect this fault at an early stage, and by applying, for a short time the cheese over the steam of a boiler, the whey will ooze out, and by the immediate application of the press it may be all squeezed out. After the pressing is over, the cheese should be laid on a dry shelf, with a little fog or meadow hay under it to expedite the extraction of damp. The cheese should be turned daily, and well rubbed with a dry cloth, but after getting firm, once a week will be sufficient. It will be found a great conveniency to have a spare press, and cast iron presses are far preferable to others, as the pressure can be regulated in them at pleasure.

"*Stilton cheese* is made by mixing the evening's cream with the morning's milk, in the proportion of one gallon of cream to three gallons of sweet milk, and treated as above.

"*Wiltshire cheese* is made with new milk and cream in the proportion of one quart of cream to two gallons of new milk, and treated as above."

Mr. Mackay, who received the first premium for his *skimmed milk cheese*, thus details his process—

"The cheeses were made from skimmed milk, one-half of which had stood 24, and the other half 12 hours when both were carefully creamed, and one-half heated to a degree that will make the whole the requisite temperature. The milk, when thus prepared, receives the steep or rennet. A gill of rennet, made from a calf's stomach, will be sufficient for a quantity of milk that will make a cheese of forty pounds. After the rennet is put in, the milk must stand until it be all properly curdled. The curd is then broken very small with a skimming dish, and allowed to settle down till all the whey be taken off; it must then be cut with a knife in a drainer, and allowed to remain in it till properly cooled. The curd must then be put into a vessel, and cut very small with a curd-knife, and a small quantity of salt used; it is again put into the drainer a second time, and allowed to remain there for the space of an hour. It is again taken out of the drainer, put into a vessel, well washed, and the requisite quantity of salt added. It is then put into a cloth, then in the cheese vat, and lastly in the press, and the cloth removed thrice a day, until the curd is properly pressed into a cheese."

Mr. Dickey heats his night's milk, for full milk cheese to a temperature equal to that coming from the cow in the morning, before he adds the rennet. Mrs. Lumsden sets her milk, i. e. puts in her rennet, when the milk is at a temperature of 85°.

BUTTER.

Mrs. Macinnis, who received a premium, describes her mode of making and curing butter, as follows:

"Earthenware vessels are used for keeping the milk, and placed in the dairy on cool stone shelves. The milk allowed to stand twelve hours, after which the cream is taken off and put into earthen jars, and made into butter the following day. The butter, when made, clean washed with spring water, and half an ounce of fine salt given to every pound of 16 ounces. It is then kept wound up with a cloth, as it accumulates for four or five days, when it is all worked together, and another half ounce of salt added to every pound, and packed into the vessel that is to contain it, with a wooden mallet made for the purpose. A little salt is sprinkled over the top, which is covered closely up, so as to exclude the air as much as possible."

Mr. M'Kenzie's milk vessels are all made of oak; the dairy-house stands in an airy situation, into which no one is allowed to enter but the dairy-maid. The milk vessels are always scalded in hot water, or steamed, before they are used.

"Joseph Leisk makes butter from cream and milk, because he considers it only practicable in large dairies to make butter from cream alone. The milk it put into large vessels, and left undisturbed for four or five days, until churned. It is necessary that the milk be actually *soured*, not thickened, otherwise it will not part with all the butyraceous matter; but it should be soured by natural, and not by artificial means, by letting it stand a sufficient time, Two or more milkings may be churned together, provided they are not mixed but in the churn. It is necessary to add warm water, to raise the temperature to 90°, otherwise the butter will not all be extracted from it. The butter is first packed in stone dishes, and afterwards in wooden kegs. The second packing gives an uniform color and taste to the butter."

William Merrilless begins to churn his cream at a temperature of 56°, when churning rises it to 60°. He does not wash his butter; but it is beaten with the hand till it is completely cleaned of the milk. The quantity of milk produced from cows fed on artificial grasses is much greater than that from cows fed on the hill; but the quality of the latter is much superior to that of the former, and yields much more cream. One pound of fine salt is allowed to one stone of 14 lbs. of butter. The butter is laid aside for two days, when it is again broken down, and beaten with the hand, and packed into small jars for family use.

From the Yankee Farmer.

Crushing Corn and Cobs---Grinding and Cooking Provender.

It is evident that a great many farmers pursue a most comendable economy in farming affairs generally, and the most dilligent industry in raising crops, and then for want of a little expense in machinery for preparing grain, or suitable apparatus for cooking it, and a little time and attention in these operations, they frequently lose from 50 to 75, and sometimes 100 per cent. of their hard earnings in feeding their stock.

Mills or machines for crushing corn and cobs are but little used in most parts of the country, notwithstanding their great utility. There is not the least doubt that by feeding stock with crushed corn and cobs instead of whole corn alone, that 50 or 75 per cent. is added to the value of the food; in this operation several impotant advantages are gained.

The cob is very nutritious, as appears by experiments in distillation in which the cob produces nearly half as much spirit as the corn, and this spirit is produced from the saccharine matter which contains the principal part of nutrition. P. Minor, Esq., in a paper to the President of the Albemarle Agricultural Society, gives the result of exact experiments made to test the relative strength of corn and cob by distillation. He took ten bushels of corn and cob, weighing 367 lbs. and ten bushels pure corn meal, weighing 400 lbs.; each were carefully distilled separately and produced as follows—10 bushels corn and cob, 13 gallons of spirit, 10 bushels corn, 18 gallons, each of the same degree of proof.

In this experiment five bushels of corn produced 9 gallons of spirit, and five bushels of corn with the cob

produced 13 gallons. In eating green corn, we occasionally get a taste of the cob, and are sensible that it is nutritious and sweet; and why should the cob lose its nutritive qualities in drying any more than the corn, they both undergo a great change both in flavor and hardness. It is necessary that cobs should be prepared in such a manner that stock will readily eat and digest them. This may be effected in a great measure by crushing them finely; but both the corn and cob would afford still more nutriment if they were cooked, and this process will well repay the expense in feeding swine; and even grinding after crushing, when it is convenient, will be advantageous. In most parts of the country, swine may be grown and fattened well, by mixing meal with other food that is much cheaper, such as apples, pumpkins, carrots, potatoes, and other roots.

As corn is very solid food and contains too much nutriment according to its bulk to be given to stock alone, being liable to produce too much heat in horses, there is a benefit in having cobs, which are a lighter food, mixed with it to produce distension; if cobs were not nutritious they would be quite a benefit, crushed or ground with corn, for this purpose.

As some kinds of stock void a considerable portion of grain whole, it is evident that they get but a small share of nutriment from such grain, and that in crushing or grinding it, there is not only an advantage on account of its fineness, which facilitates digestion, and enables animals to receive its nutritious qualities, but the grain being broken the soft parts are easily acted on in the stomach of the animal, when without this preparation, it would be protected by its hard coat or covering. All kinds of grain for stock, are far more valuable for being ground, and for want of economy in this respect, very great losses are sustained and further important advantages are gained by cooking. The price of some corn and cob crushers is $15 and it is said that they work well, reducing the corn and cobs to the size of hominy or coarse bran, and they may be propelled by horse or manual labor.

When a farmer expends one or two hundred dollars or more for farming implements, to enable him to conduct his business to advantage, and raise good crops, he should consider that it is equally important that he expend a small sum for a corn and cob crusher, a straw cutter an apparatus for cooking food, and other things necessary to make a great saving in feeding his produce to his stock. In regard to these things there is a great deficiency in most parts of the country, consequently great annual losses, and it is high time for farmers to wake up and improve—to save as well as earn.

SLEEPING CHAMBERS.

Is the philosophy of sleep enough considered? Are the circumstances connected with this condition of human nature, for one quarter or one third of human life, duly attended to?

While we are awake, our bodies are, as a general rule more or less in motion; and the air, even in our rooms, more or less in motion also. But while we sleep we are quiet, the air is quiet, and is soon contaminated.—Do people consider how fast?

The air is spoiled fast when but one person occupies a bed, and there is but one bed in the room. Franklin and others have supposed the air to be rendered unfit for breathing at the rate of a gallon a minute. But if so, how many of us breathe bad air in our sleeping rooms! We seldom lie quietly in our beds with the doors and windows closed, a heap of feathers under us, and thick clothes over us, more than an hour at most, before we begin to suffer. This is the case if the sleeping room is large; but if small, it is much worse. It is impossible to have a hogshead of poisoned air diffused through a sleeping room without doing mischief.

I know it will be said that the carbonic acid gas, produced by breathing, is heavier than atmospheric air, and soon settles to the floor; and if the bed room is not so small that the room, like a culinary vessel, gets full of it up to the surface of the bed, before the individual wakes, there is no danger.

But it does not at all settle to the floor. In hot weather, it scarcely settles at all; though in cold weather it does so much more. Nay, even in cold weather some of it falls on the bed, and much of it is entangled in the bed clothes. This, however, is not quite all. The same poisonous gas which is formed by breathing, is also constantly formed by the whole surface of our bodies, in greater or less degree; and this, if improved under the bed clothes, between them and a thick bed of feathers, is not only injuring us by its contact with our skins, but still more by our breathing it. For nothing is more common than for a small quantity of this impure air to escape from the bed by the side of our bodies, especially upon the least motion; thus giving an opportunity—nay, a certainty—of inhaling a part of it.

To all these evils we are subjected, I have said, when under the most favorable circumstances; that is, when our sleeping rooms are large, and when only one person occupies a bed, and one bed in an apartment. But when two persons, or even more, sleep in the same bed, when the room is small, or has several beds in it, and when the beds are of feathers or down, the evil and the danger are very greatly increased.

I wish sleeping rooms were much larger than they are. Then I wish they were always freed as much as possible from unnecessary clothing, and every thing which could retain bad air. The bedstead should be rather high and only broad enough to accommodate freely and fully one person. The bed should be of some material which is light and porous, as oat or wheat straw, corn husks split finely, grass, hay, &c.; and the clothing should be adapted to the season, but should never be so constructed as to prevent entirely the passage of the air through it. No dogs, or cats, or lambs, or fires without flues, should be found in the room. A window or door which will admit fresh air should be, in all seasons, but especially in hot weather, left open in such a direction from the bed as will not expose the occupant to have currents of air fall directly upon him; to prevent the possibility of which, however, a screen might be placed before the window. Then in the last place, and as I have already intimated, the bed should contain but one person, and unless the room is exceedingly large, there should be but one bed in it.

Perhaps it will be said that I require too much. Most persons, I shall be told, cannot have all this. No, they cannot. Sin is in the world, and has long been in it; and it will be long before we can get it out entirely.—But sin has brought with it among other evils, that of poverty; and poverty does not always permit every thing which is best for health. But one thing at least we can do; which is, to come as near what we know to be truth as possible.—*Library of Health for Sept.*

WM. PRINCE & SONS, will make sales of Trees and Cuttings of the genuine Chinese Morus multicalis, Morus Expansa, Alpine, and other varieties, deliverable to the purchasers at such periods in the spring as they may find it convenient to take them, and will enter into contract accordingly. Prices of the trees, &c. will be forwarded to all who may apply for them by mail, and also of Silk worms Eggs, Seeds, &c. The trees are very superior as respects their vigor, and the genuine multicaulis having been first imported by us, purchasers are sure of obtaining the genuine article.
Flushing, near New York, Dec. 10, 1838. dec 15-4t

The Magazine of Horticulture,

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Dec. 8.–3t REYNOLDS & BATEHAM.

Wheat Farms for sale in Western New-York,

IN the counties of Monroe, Orleans, Genesee and Erie—varying in quantity from 50 to 300 acres each—under a good state of cultivation and improvement, with suitable buildings, fences, &c. watered with durable streams, and most of them have wheat on the ground. Five to eight years credit can be given, if wanted, on the whole principal sum, with annual interest. These farms are situated in the midst of a rich agricultural district, unsurpassed in the richness and productiveness of its soil; lying on the banks of the Erie canal, and in the vicinity of Rochester, Lockport and Buffalo, affording at all times a ready and sure market for all the articles of produce, which at present prices amply reward the husbandman and enables him with a few crops to pay the first cost of his lands. A favorable opportunity is here presented to the enterprising farmer who would wish to obtain a good farm on liberal credit, with sufficient means to secure the payment of one-third of the purchase money. Letters (post paid) promptly attended to.
Rochester, N. Y., Dec. 8, 1838.–4w JOHN C. NASH.

Chinese or Tree Corn.

A SMALL lot of this celebrated new variety of Corn just received from Mr. Thorburn, for sale at New York prices, by
Nov. 24. REYNOLDS & BATEHAM.

Rohan Potatoes.

THE real article, just received at the Rochester Seed Store.
REYNOLDS & BATEHAM.
Rochester, Nov. 3d, 1838.

Genuine Morus Multicaulis.

THE subscriber has still for sale, one thousand genuine Morus multicaulis, of thrifty growth and untrimmed. They are choice trees, selected for their size, and will afford a large quantity of cuttings.
ASA ROWE.
Greece, October 27th, 1838.

Seeds for 1839.

WE are daily receiving our fall supply of SEEDS for the coming season and advices have just been received from London, of the shipment of a large invoice of English seeds of the present year's growth. They will shortly be received, and we shall then be prepared to supply dealers and others by wholesale and retail, with such articles, and at prices as cannot fail of giving the fullest satisfaction.
Orders from abroad where the articles are to beforwarded by navigation, should be sent as soon as possible. Those of our friends who have already favored us with their orders may rest assured that their wishes will receive due attention. REYNOLD & BATEHAM.
Rochester Seed Store, October 27th, 1838.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county, state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.
April 15, 1838. SAMUEL MOULSON.
N. B. Cash will be paid for a few thousand two years old APPLE TREES.

Rohan Potatoes.

THIS new and extraordinary variey of the potatoe, was introduced into this country from Switzerland two years ago.
The following are among the accounts which have been published aspecting its wonderful qualities.
A writer in the Genesee Farmer says, one pound of seed planted in his garden, produced 136 lbs. 3 ozs.; and 45 lbs. planted on 24 rods of ground produced 58 bushels, being three times as many as the common kinds produced on the same space and quality of ground.
A gentleman in Connecticut, from 13 ozs. of seed produced 2½ bushels of potatoes, which weighed 144 pounds, while other varieties, with similar soil and cultivation, did not produce more than half an ordinary crop, owing to the extreme dry weather. It is stated that some of these tubers sold for $1 each, at the New Haven Horticultural Fair. Judge Buel (in the Cultivator) says we have cultivated them two seasons, and feel justified in recommending them as a valuable acquisition in our husbandry.
First—Because their quality for the table will justify it. If not superor they are good. The flesh is yellow, solid, and of good flavor.
Secondly—Because they admit of a great economy in seed; two, eyes sufficing (and many of the tubers have 30 to 40 eyes) to plant a hill, and three or four bushels to plant an acre of ground.
Thirdly—Because they require comparatively little labor in harvesting, a man being able to dig thrice as many of them in a day as of ordinary kinds. The tubers are very large, 110 of the largest of our crop completely filling a flour barrel. 27 bushels were dug in our presence in one hour, (the tops being pulled,) by one man at moderate labor.
Fourthly—Because they yield an abundant crop—from 85 rods of ground were gathered 175 bushels, while our common kinds did not give us half a crop. One case has been stated to us, of a single potatoe producing a bushel, and another of its having produced a barrel, at harvest.
☞ They are for sale at the Rochester Seed Store, by
nov 17 REYNOLDS & BATEHAM.

Chinese Morus Multicaulis, &c.,

At the Linnæan Gardens, Flushing, New York.

50,000 SPLENDID trees of the genuine Morus multicaulis are yet remaining for sale at moderate prices, according to their size, and also cuttings of the same. None of the *humbug* kind are sold at this establishment. Also 20,000 trees of the Morus Expansa, which has very large leaves, greatly loved by the worms; it is very hardy, and yields silk of the first excellence. A great supply of the Moretti, or Alpine Mulberry, the Canton, Dandola, Brousea, Asiatic, Pyramidalis, Rose of Lombardy, Morus Alata, and other varieties. Also, Fruit and Ornamental Trees. Plants and Seeds of every kind, and an immense stock of Bulbous Flower Roots, just arrived from Holland.
Silk Worms' Eggs of every kind at the lowest prices, and White Italian, Canton and Moretti, or Alpine Mulberry Seeds in any quantity.
The Morus Multicaulis trees raised here have one-third more joints and buds than southern trees, and of course are worth 50 per cent. more for propagation; and the wood becomes as mature and perfect on the high exposed position our nurseries occupy, as at any place in the Union. Also, Fruit and Ornamental Trees, Bulbous Roots, Green House Plants, and Seeds of all kinds, for sale in large or small parcels.
Priced catalogues will be sent to every applicant, and orders per mail will be executed with as much precision and despatch as if the purchasers were present, and will be packed so as to be sent to the remotest region with safety.
nov 17-8t) WM. PRINCE & SON.

From the Wisconsin Culturist.

W. P. PROUDFIT, Esq., Editor W. Culturist—Dear Sir: We have perused a letter from Lucius B. Allen, Esq. accompanied by an editorial comment, which without proper explanation is calculated to mislead the public. It appears that Mr. Allen received seeds from Dr. Stebbins, of Northampton, Mass., which he deems the *Morus multicaulis*, and from which he states he has raised 30 to 40,000 trees. We have simply to say that there never has been one ounce of genuine Morus multicaulis seed sold in the Union, and that all the trees raised from seeds *professedly* of the Morus multicaulis, have proved to be none other than an improved variety of the White Mulberry, with much larger leaves than the White Mulberry, but possessing no resemblance to the genuine Morus multicaulis. All such applications of the term "Multicaulis," meaning *many stalks from one root*, are totally improper, and any such terms as Alpine Multicaulis, or Canton Multicaulis, are delusive. The Alpine is the Moretti Mulberry of France, and was originated there from seed, and *is not known in China*, and all efforts to import the genuine Multicaulis from China have as yet proved abortive, and there exists no proof whatever that it is to be found there, although in all probability it does, but at some locality not yet ascertained. The genuine Multicaulis was brought from the Phillippine Islands to France, and was first imported into America by ourselves. It is time these errors should be put a stop to, as thousands of dollars have been already lost by persons cultivating and propagating the wrong tree. The seed from Dr. Stebbins no doubt produces valuable trees, but let them be called by their *true name*, and not by one totally distinct, and the use of which may mislead people at a distance, although here it cannot. In the whole village of Northampton there were not 50,000 trees of the genuine Morus multicaulis raised the present season, but they have there many other fine varieties in abundance [nov 17-8t] WM. PRINCE & SON.

Monroe Horticultural Garden and Nursery,

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.
The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Peonies, Double Dahlias, &c. &c.
Also, a large collection of Green House Plants, of choice and select varieties, in good condition.
Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.
Orders for Mr. Rowe's Nursery received by the publisher of this paper.
Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer
April 1, 1838. ASA ROWE.